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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,233	04/01/2004	Bo-Cun Chen	SUND 509	5363
23995 7590 04/11/2007 RABIN & Berdo, PC 1101 14TH STREET, NW SUITE 500 WASHINGTON, DC 20005			EXAMINER GITOMER, RALPH J	
			ART UNIT	PAPER NUMBER
			1657	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/11/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/814,233

Applicant(s)

CHEN ET AL.

Examiner

Ralph Gitomer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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The amendment and RCE received 2/21/07 has been entered and claims 2-14 are currently pending in this application.

The claimed invention appears to be a two part method where microorganisms in water are concentrated on a filter and stained with KMnO_4 to make them visible. It is well known that KMnO_4 stains cells brown which was an issue when it was frequently used for treating skin conditions such as poison ivy leaving lasting brown stains on everything it contacted including skin. Concentrating cells by filtering is old. And the claims have been newly amended to include growing the microorganisms on the membrane with a nutrient solution prior to staining to make it easier to perform a colony count after staining.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of each of Lloyd and Fleming in view of Levenberg.

Lloyd (4,209,585) entitled "Method and Apparatus for the Automatic Microbiological Sampling of a Liquid Product" teaches in column 1 lines 26-43, liquid samples are passed through membranes which filter out microorganisms. The membranes are then introduced to a nutrient medium and incubated for a period of time. The cells are then stained and detected. In column 3 last full paragraph, after collection the membranes and nutrient medium are incubated. The size of the pores may be selected to filter out microorganisms larger than a predetermined size. After incubation the membrane may be subjected to staining which will disclose the presence of microorganisms.

Fleming (US 2002/0055134 A1) entitled "Method and Apparatus for Viable and Nonviable Prokaryotic and Eukaryotic Cell Quantitation" teaches in paragraph 8, samples are filtered through a membrane filter that traps the cells to be counted, dye is applied and cells counted. In paragraph 48 cell determination may be made by using dyes or stains.

The claims differ from the above references in that they specify the stain is potassium permanganate.

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Levenberg (US 2005/0031598) entitled "Engineering 3D Tissue Structures Using Differentiating Embryonic Stem Cells" teaches in paragraph 108, staining cells with potassium permanganate.

It would have been obvious to one of ordinary skill in this art at the time the invention was made to stain the cells of the primary references with potassium permanganate as taught by Levenberg because the primary references teaches dyes and stains in general and to select any known dye or stain, such as potassium permanganate as taught by Levenberg with the expected result would have been obvious. No unexpected results are taught or claimed by the selection of potassium permanganate.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Brenner (7,148,033) teaches detecting microorganisms on membranes.

Roth (6,699,685) entitled "Method, Test Media and Chromogenic Compounds for Identifying and Differentiating General Coliforms and E. coli Bacteria" teaches in column 1 last paragraph, the membrane filter method where the sample is passed thru a filter so the bacteria are retained on the surface of the filter. The filter is then incubated. The substrate in the nutrient medium changes color in the presence of specific microorganisms.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ralph Gitomer whose telephone number is (571) 272-0916. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jon Weber can be reached on (571) 272-0925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Ralph Gitomer
Primary Examiner
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